REMARKS

Claims 3, 4 and 6 currently appear in this application. The Office Action of March 23, 2006, has been carefully studied. These claims define novel and unobvious subject matter under Sections 102 and 103 of 35 U.S.C., and therefore should be allowed. Applicant respectfully requests favorable reconsideration, entry of the present amendment, and formal allowance of the claims.

Rejections under 35 U.S.C. 103(a)

The Examiner has alleged that the present application currently names joint inventors. However, it should be noted that there is only one inventor, namely, Shin SHIMAOKA.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ono et al., *Chem. Pharm. Bull* **45(10)**: 1626-2630, 1997.

This rejection is respectfully traversed. Ono et al. teaches that various analogs of 1α, $25(OH)_2D_3$ have been synthesized for obtaining a useful analog for the medical treatment of psoriasis et al. However, this teaching does not mean that any or all of the compounds disclosed are actually effective for treating psoriasis. Ono et al. only describe

that ED-71 and derivatives thereof are useful for treating bone diseases such as osteoporosis. There is nothing at all in Ono et al. that even suggests that ED-71 is useful for treating psoriasis or other diseases. Attention is directed to the last sentence of the Abstract, page 1626, left column, lines 8-11; right column, lines 1-11; the result to increase BMD; and page 1628, right column, lines 9-1 from the bottom of the page.

As stated by the Examiner, Ono et al. teach that ED0-71 increased plasma calcium levels in rats on a low Ca/D-deficient diet more significantly than did 1α, 25$(OH)_2D_3$. However, this effect of ED-71 does not have anything to do with treating psoriasis. Furthermore, as has been previously stated, it is well known that with respect to vitamin D_3 analogs, all vitamin D_3-like activities other than a calcium mobilizing activity are not always as potent as the calcium mobilizing activity.

It is respectfully submitted that not all vitamin D compounds possess anti-psoriasis activity. There is no evidence for the assertion that all vitamin D derivatives have anti-psoriasis activity. The following table shows indications shown for some vitamin D_3 analogs approved in

Japan, which are recited in the descriptions (effect-efficacy):

Generic Name (Other Name)	Indications (Registered in Japan)
Calcitriol ($1\alpha,25(OH)_2D_3$)	- Osteoporosis, - Secondary hyperparathyroidism under the maintenance dialysis, - Improvement of the symptoms accompanied with vitamin D metabolism abnormality (hypocalcemia, numbness, tetany, paresthesia, muscular weakness, bone pain, bone lesion, etc.) in chronic renal failure, hypoparathyroidism, rickets or osteomalacia
Alfacalcidol ($1\alpha(OH)D_3$)	- Osteoporosis, - Improvement of the symptoms accompanied with vitamin D metabolism abnormality (hypocalcemia, tetany, bone pain, bone lesion, etc.) in chronic renal failure, hypoparathyroidism, vitamin D-resistant rickets or osteomalacia
Oxarol (22-oxa-calcitriol)	- Psoriasis vulgaris, - Ichthyosis, - palmoplantar keratosis, - Secondary hyperparathyroidism under the maintenance dialysis
Tacalcitol ($1\alpha,24(OH)_2D_3$)	- Psoriasis vulgaris, - Psoriasis, - Ichthyosis, - palmoplantar pustulosis, - palmoplantar keratosis, - pityriasis rubra pilaris
Calcipotriol (Calcipotriene)	- Psoriasis vulgaris
Falecalcitriol	- Secondary hyperparathyroidism under the maintenance dialysis, - Improvement of the symptoms accompanied with vitamin D metabolism abnormality (hypocalcemia, numbness, tetany, paresthesia, muscular weakness, bone pain, bone lesion, etc.) in hypoparathyroidism, rickets or osteomalacia

As can clearly be seen from the table, the indications for six different vitamin derivatives are varied. In particular, Calcitriol and Alfacalcidol are indicated for osteoporosis, but are not indicated for psoriasis. On the other hand, some of the other analogues are not useful for

treating osteoporosis. One of ordinary skill in the art would be very familiar with the varying treatment efficacies of vitamin D derivatives, and would be aware that the compounds are not interchangeable in pharmaceutical effects.

In view of the foregoing, even though a vitamin D_3 analogue possesses a potent calcium mobilizing activity and is useful for treating osteoporosis, as disclosed by Ono et al., one of ordinary skill in the art would not expect that ED-71 would have a therapeutic effect on psoriasis, even though ED-71 has a strong calcium mobilizing activity. The present inventor has discovered that Ed-71 has a very potent suppressing action on the keratinocyte proliferation as compared with 1α, $25(OH)_2D_3$, as shown in Figure 1, and therefore ED-71 is useful in treating psoriasis.

Patients suffering from psoriasis are generally different from patients suffering from osteoporosis, for example, with respect to age. Osteoporosis develops with advancing age, while incidence of psoriasis **decreases** in persons above the age of 50. Therefore, when a vitamin D_3 analogue is administered as an agent for treating osteoporosis, there is probably no reason to be treating psoriasis. Accordingly, the presently claimed invention is not inherent in the prior art disclosure.

In view of the foregoing, one of ordinary skill in the art could not easily achieve the present invention from reading Ono et al., as there is nothing in Ono et al. that even suggests that ED-71 can be used for treating psoriasis. It is respectfully submitted that Figure 1 and the example beginning on page 7 clearly demonstrates that ED-71 is superior in suppressing human keratinocyte proliferation activity. The human keratinocyte proliferation suppressing activity of ED-071 was calculated as a relative value with respect to 1α, $25(OH)_2D_3$. The activity of ED-71 was calculated to be 305.23 or more (relative value = (IC_{50} value of 1α, $25(OH)_2D_3$)/(IC_{50} value of ED-71).

Figure 1 clearly shows that the IC_{50} (mol/L) value of 1α, $25(OH)_2D_3$ was 3.05×10^{-8} mol/L, while the IC_{50} (mol/L) value of ED-71 was 1.0×10^{-10} mol/L. It is respectfully submitted that this clearly demonstrates unexpected results from administering ED-71 to treat psoriasis, rather than 1α, $25(OH)_2D_3$.

In view of the above, it is respectfully submitted that the claims are now in condition for allowance, and favorable action thereon is earnestly solicited.

Respectfully submitted,

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